

Vasospastic angina – myocarditis imitation: a case report

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Case report: 45-year-old woman was hospitalized for severe chest pain. Her medical problem began four months earlier. ECG and echocardiographic findings were normal. Stress test was stopped because of chest pain at 8 METs. At the time of two-minute chest pain, the ECG recorded intermittent left branch block (**Figure 1**). The 24h Holter ECG showed the frequency dependent left bundle branch block (LBBB) but no chest pain episode. MSCT coronary artery detected normal coronary arteries. Cardiac MR was suggestive to myocarditis. Troponin and inflammatory parameters during the four months of follow-up remained normal. Considering the persistence of symptoms, coronary angiography was performed showing normal epicardial arteries. During angiography, the patient experienced chest pain at the time of right coronary artery (RCA) probing, and coronary artery spasm of the proximal RCA was obvious at the time (**Figure 2**). After the nitroglycerin bolus application, spasm disappears (**Figure 3**) and chest pain released. During the coronary angiography there was no ST-segment elevation, nor intermittent LBBB. Vasospastic angina has been diagnosed. The patient was further treated with calcium antagonists and long-acting nitrates resulting in clinical improvement.

Discussion: Early diagnosis of variant angina is crucial to avoid major cardiac events¹. In the case of large coronary artery spasm, the ECG can show impermanent ST elevation. LBBB was observed temporarily in our patient during stress test concomitant with chest pain but not in the 24h Holter ECG recording. Coronary vasospasm and myocarditis are both recognized mimics of ST-segment elevation myocardial infarction with normal coronary arteries. The occurrence of both pathologies in the same patient has rarely been described². Our patient had no troponin increase recorded, and no inflammatory

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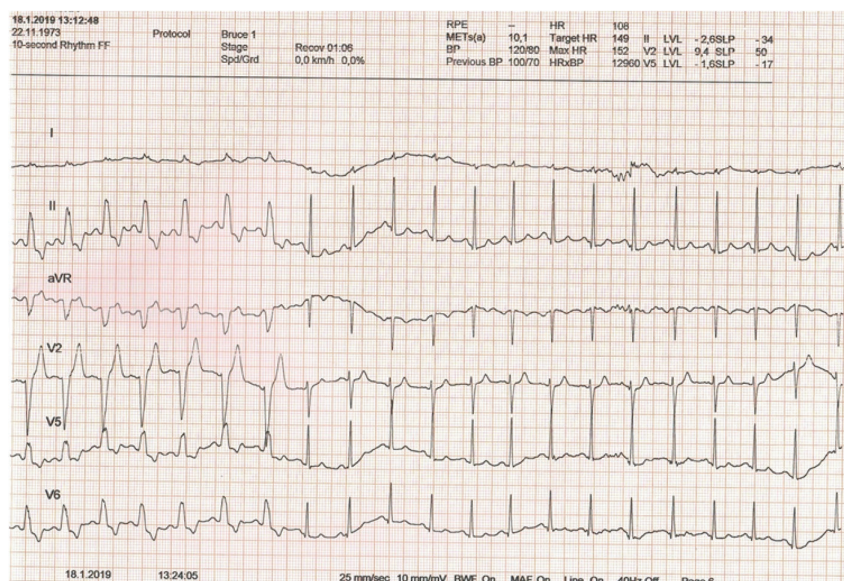


FIGURE 1. Stress test: Intermittent left bundle branch block during chest pain episode.

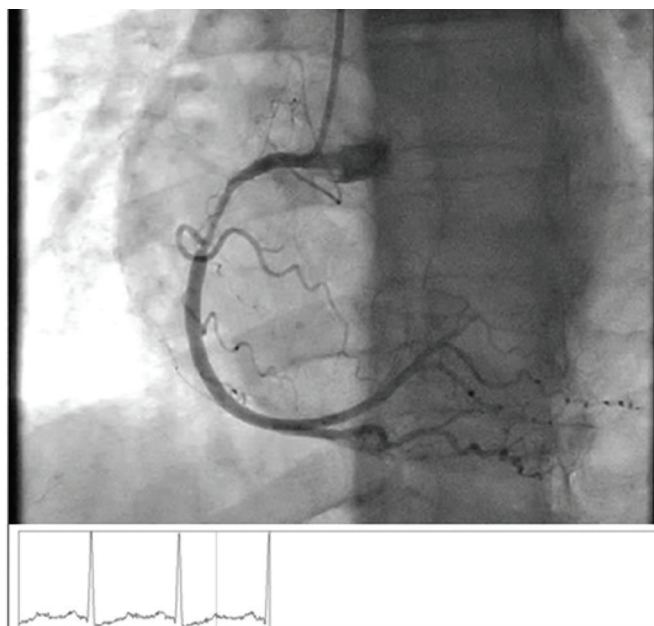


FIGURE 2. Coronary angiography: right coronary artery vasospasm during chest pain episode.

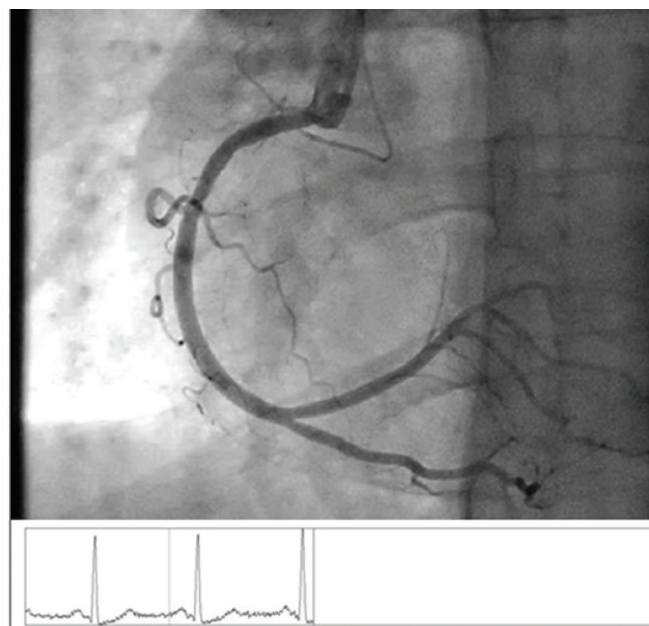


FIGURE 3. Coronary angiography after nitrate application.

parameters. It is important to note that the diagnostic sensitivity and specificity of the CMR for pericarditis is under 100%³. The case confirms the complexity of vasospastic angina diagnosis, and the importance of understanding the diagnostic imaging limitations.

LITERATURE

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